

TILTING MAST IN A ROTORCRAFT

ABSTRACT OF DISCLOSURE

A rotorcraft includes a fuselage, a rotor assembly, a tail section connected to the fuselage, a propulsion system including an engine mounted to the fuselage, and a wing mounted to the fuselage. The rotor assembly includes a rotor having either a single or a plurality of rotor blades which can produce a resultant force vector which can pass through or near the center of gravity of the rotorcraft, and a spindle to connect the rotor with a flight control assembly. The rotor assembly also includes a tilting mast assembly having a tilting mast frame also connected to the spindle to support the rotor. The tilting mast tilts the rotor and provides cyclic control through a cyclic control linkage connected to the tilting mast frame. A mast control cylinder is provided to tilt the tilting mast assembly.